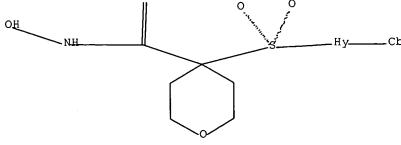
```
FILE 'HOME' ENTERED AT 13:56:17 ON 02 APR 2007
=>
file reg
Uploading C:\Program Files\Stnexp\Queries\Queries\10722104.str
chain nodes :
7 8 9 10 11 12 13 15 16
ring nodes :
1 2 3 4 5 6
chain bonds :
4-7 4-10 7-8 7-16 7-15 8-9 10-11 10-12 12-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
4-7 7-8 7-16 7-15 8-9 10-11 10-12
exact bonds :
1-2 1-6 2-3 3-4 4-5 4-10 5-6 12-13
isolated ring systems :
containing 1 :
Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 15:CLASS 16:CLASS
Generic attributes :
8:
             : Unsaturated
Saturation
 L1
        STRUCTURE UPLOADED
 => dis 11
 L1 HAS NO ANSWERS
               STR
 L1
```



10/722,104

Structure attributes must be viewed using STN `Express query preparation.

```
=> s 11 sam
             3 SEA SSS SAM L1
L2
=> s l1 full
             41 SEA SSS FUL L1
L_3
=> file caplus
=> s 13
             2 L3
=> s 14 and pd<sept 2003
      23766849 PD<SEPT 2003
                 (PD<20030900)
             1 L4 AND PD<SEPT 2003
L5
=> dis 15 bib abs hitstr
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
L5
     1999:388166 CAPLUS Full-text
ΑN
DN
     Preparation of N-hydroxytetrahydropyridylsulfonylacetamides and related
TΙ
     compounds as matrix metalloprotease inhibitors.
     Dack, Kevin Neil; Whitlock, Gavin Alistair
ΙN
PΑ
     Pfizer Limited, UK; Pfizer Inc.
     PCT Int. Appl., 149 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                                           APPLICATION NO.
                                                                   DATE
     PATENT NO.
                        KIND
                                DATE
                                            _____
                         ----
                                _____
                                                                   19981009 <--
                                19990617
                                          WO 1998-EP6640
     WO 9929667
                         A1
PΙ
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                            CA 1998-2312935
                                                                   19981009 <--
                                19990617
     CA 2312935
                          A1
                          C
                                20060314
     CA 2312935
                               19990628
                                                                 19981009 <--
                          Α
                                            AU 1999-12301
     AU 9912301
                          B2
                                20011213
     AU 741859
                                                                   19981009 <--
                          Α1
                                20000920
                                            EP 1998-955494
     EP 1036062
                          В1
                                20040102
     EP 1036062
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, LT, LV, FI, RO
                                                                   19981009 <--
                                20001017
                                            BR 1998-13360
     BR 9813360
                          Α
                                                                   19981009 <--
     TR 200001611
                          T2
                                20001023
                                            TR 2000-200001611
                                                                   19981009 <--
                                20010828
                                            HU 2001-845
                          A2
     HU 200100845
                          A3
                                20021228
     HU 200100845
                                                                   19981009 <--
                                20011211
                                            JP 2000-524264
                          T
     JP 2001525396
                                20030908
     JP 3445242
                          B2
                                                                   1'9981009 <--
                                20020201
                                            NZ 1998-504421
     NZ 504421
                          Α
```

Page 2 of 7

10/722,104

	AT 257151	T	20040115	AT 1998-955494	19981009
	PT 1036062	${f T}$	· 20040430	PT 1998-955494	19981009
	ES 2212373	Т3	20040716	ES 1998-955494	19981009
	AP 930	Α	20010126	AP 1998-1412	19981203 <
	W: BW, GM, GH	, KE,	MW, SD, UG,	ZM, ZW	
	ZA 9811112	A	20000605	ZA 1998-11112	19981204 <
	NO 2000002826	Α	20000726	NO 2000-2826	20000602 <
	HR 200000373	A1	20001231	HR 2000-373	20000605 <
	BG 104506	А	20010131	BG 2000-104506	20000605 <
	US 6495568	В1	20021217	US 2001-423359	20011012 <
PRAI	GB 1997-25782	A	19971205		
	WO 1998-EP6640	W	19981009		
os	MARPAT 131:44740				•
CT					

Т

Title compds. [I; dotted line = optional double bond; A = C, CH; B = CH2, O, null; R1, R2 = H, (substituted) alkyl, alkenyl; R1R2C = (benzo-fused) C3-6 cycloalkyl group optionally incorporating O, SO, SO2, NR6; R3 = H, halo, R7, OR7; R4 = H, alkyl, alkoxy, CF3, halo; R6 = H, alkyl; R7 = (substituted) mono-or bicyclic ring system; m = 1, 2; n = 0-2; with the proviso that B is not O when A is C], were prepared as MMP inhibitors useful in the treatment of tissue ulceration, wound repair and skin diseases. Thus, Me 2-[4-(3-methyl-4-phenylphenyl)-1,2,3,6-tetrahydropyridin-1- ylsulfonyl]acetate (preparation given) was refluxed with NH2OH.HCl and K2CO3 in THF/MeOH to give N-hydroxy-2-[4-(3-methyl-4-phenylphenyl)-1,2,3,6-tetrahydropyridin-1- ylsulfonyl]acetamide. The latter inhibited matrix metalloproteinase 3 with IC50 = 16 nM.

IT 227304-22-5P 227304-26-9P 227304-35-0P 227304-36-1P 227304-51-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-hydroxytetrahydropyridylsulfonylacetamides and related compds. as matrix metalloprotease inhibitors)

RN 227304-22-5 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[3,6-dihydro-4-(3'-methoxy-2-methyl[1,1'-biphenyl]-4-yl)-1(2H)-pyridinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

RN 227304-26-9 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(3'-ethoxy-2-methyl[1,1'-biphenyl]-4-yl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

RN 227304-35-0 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[(4-[1,1'-biphenyl]-4-yl-3,6-dihydro-1(2H)-pyridinyl)sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

RN 227304-36-1 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[4-(4'-ethoxy-2-methyl[1,1'-biphenyl]-4-yl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

RN 227304-51-0 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[3,6-dihydro-4-(2-methyl[1,1'-biphenyl]-4-yl)-1(2H)-pyridinyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> s 14 not 15
L6
             1 L4 NOT L5
=> dis 16 bib abs fhitstr
     ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
L6
     2004:467885 CAPLUS Full-text
ΑN
DN
     141:38527
     Preparation of heteroarylsulfonylmethyl hydroxamic acids and amides and
     their use as protease inhibitors
     Becker, Daniel P.; Carroll, Jeffery.N.; Fobian, Yvette M.; Grapperhaus,
ΙN
     Margaret L.; Hansen, Donald W., Jr.; Heintz, Robert M.; Kassab, Darren J.;
     Massa, Mark A.; McDonald, Joseph J.; Nagy, Mark A.; Pitzele, Barnett S.;
     Rico, Joseph G.; Schmidt, Michelle A.; Spangler, Dale P.
PΑ
     Pharmacia Corporation, USA
     PCT Int. Appl., 252 pp.
SO
     CODEN: PIXXD2
DT
     Patent
·LA
     English
FAN.CNT 1
     PATENT NO.
                                            APPLICATION NO.
                                                                    DATE
                         KIND
                                DATE
                         ____
                                            ______
                                            WO 2003-US37942
     WO 2004048368
                         A2 .
                                20040610
PΙ
     WO 2004048368
                         A3
                                20040812
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
                                          CA 2003-2506796
                                                                    20031124
                                20040610
     CA 2506796
                          A1
                                                                    20031124
                                            AU 2003-300800
     AU 2003300800
                          Α1
                                20040618
                                20050824
                                            EP 2003-812052
                                                                    20031124
     EP 1565459
                          Α2
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     BR 2003016506
                          Α
                                20051004
                                            BR 2003-16506
                                                                    20031124
                                            JP 2005-510336
                                                                    20031124
     JP 2006513270
                          T
                                20060420
                                            US 2003-722104
                                                                    20031125
     US 2004142979
                          Α1
                                20040722
PRAI US 2002-429068P
                          Ρ
                                20021125
     US 2003-504281P
                          Ρ
                                20030919
                                20031124
     WO 2003-US37942
                          W
```

OS

GΙ

MARPAT 141:38527

Title compds. I [wherein A1 = H, OH, cycloalkyloxy, heterocyclyloxy; A2, A3 = AB independently H, (un) substituted (cyclo) alkyl(thio), alkenyl, alkynyl, heterocyclyl, etc.; or CA2A3 = (un)substituted cycloalkyl, heterocyclyl, such as tetrahydropyranyl; E1 = (un)substituted heteroaryl; E2 = (un)substituted cycloalkyl; E3 = a bond, O, CO, CO2, OCO, S, SO, SO2, OSO2, SO2O, C(=NH), C(=NOH), (un)substituted NH, CONH, NHCO, CONHNHCO, NHCONH, NHSO2, SO2NH, NHC(=NH), NHC(=NOH), C(=NH)NH, C(=NOH)NH, (carbonyl)alkyl, alkenyl, alkanoyl; E4 = H, halo, CN, (un) substituted (cyclo) alkyl, alkenyl, alkynyl, heterocyclyl; and salts thereof] were prepared as inhibitors of protease activity, particularly matrix metalloproteinase (MMP), TNF- α convertase, or aggrecanase activity. For example, coupling of 2-thiopheneboronic acid with 4butoxybromobenzene gave 2-(4-butoxyphenyl)thiophene (58%), which was treated with Me disulfide and Oxone to afford the 5-(methylsulfonyl)thiophene derivative (58%). Reaction of the Me sulfone with t-Bu carboxylate anhydride using lithium bis(trimethylsilyl)amide provide the tert-Bu lpha-(thienylsulfonyl)acetate (89%). Tert-Bu 4-[[5-(4-butoxyphenyl)thien-2yl]sulfonyl]tetrahydro-2H-pyran-4-carboxylate (91%) was produced by cycloaddn. of the acetate with bis(bromoethyl) ether in the presence of 18-crown-6. Deesterification (85%) with TFA, followed by amidation (100%) with O-(tetrahydro-2H-pyran-2-yl)hydroxylamine and O-deprotection (74%) with HCl gave II. The latter inhibited the human recombinant MMP-1, MMP-2, MMP-9, MMP-13, and MMP-14 cleavage of peptide substrates with Ki values of >1250 nM, 0.483 nM, 0.806 nM, 0.127 nM, and 466 nM, resp. Thus, I and their pharmaceutical compns. are useful for treating tissue destruction, fibrotic diseases, matrix weakening, defective injury repair, cardiovascular disease, pulmonary disease, kidney disease, liver disease, ophthalmol. disease, and/or CNS diseases (no data).

TT 701270-37-3P, 4-[[5-(4-Butoxyphenyl)thien-2-yl]sulfonyl]-N-hydroxytetrahydro-2H-pyran-4-carboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protease inhibitor; heteroarylsulfonylmethyl hydroxamic acids and amides and their use as protease inhibitors)

RN 701270-37-3 CAPLUS

CN 2H-Pyran-4-carboxamide, 4-[[5-(4-butoxyphenyl)-2-thienyl]sulfonyl]tetrahydro-N-hydroxy- (9CI) (CA INDEX NAME)

=> log y

STN INTERNATIONAL LOGOFF AT 13:57:54 ON 02 APR 2007